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[Continued on next page]

(54) Title: SUCROSE-INDUCIBLE PROMOTER PROM SWEBTPOTATO

30C£ ACTGATACTTT9GTGACTGCATTGTGTTG3GTCTGCCAAATCTATTGAGGGAGUGGAAGAAGTAGAA GIGTTAGGGATIGGTGTGGGGGGTTTCCAAAGTTNCCTCTTTTCCTTATTCTTAGTTTCTT Greatarg to teaggerate getare carta saarteteate tetaac ciata to tate tetatetate at AATTALGC POTTACTCAAA GGAATOTTCCATTTAGGTCATTTTTAATOTCTATCAATTGATCATTTCAAG TAMACAMA CECEGGET CIAMISCI GGGA: TITGUTTICTT PATTATGCAGT WITH TGGGATA ANGOTTO late decembrates are garerdatega getect geteckegases escitectica ac CTBALANTESBACGTAATTTCTETTGASTAATGCTTGTTTCATTGTTMATTCGTGAC TAATTGTTCTTT UTT TTT CAATTOT TCAAAA GCTTACTATGTATACGTOTTGTATAATGTAATACAACAGCCAGCATTAGGA TENANTAGAGOTTYTAAATTAAACTCAACCAGAATCCTGCTTATYTE QAGAATTACTA CCATTCTCAAAA ANTANATALATAA TELTUAGATUTSTTVA TATAA TARATAAATEA IGAGA TETUTT CAACGETETTEA AGT VIET : ACAG TIGTATGATAATGACCAUCACATGATAG TIAGAGAACTTAGGAGC ATGAATCIGG T GCT EUPSC TGATCGATTTA TGGGATGATGCAGTGCATTCAC TGTATAGCGTGTGATGGCAGGCATZAGAT CHIPPITETATEGIC TOTATTTCACGTGGGGTGLCCATTTGTGCCGTTTCCGTCAGCCACTTAAATGGAC CALCATCCCUTGAGGAAGACCCCCCAAATTCAGACTTAGACACACTAATTATAGGGGCATATGATATTATG ATTCCATARTICCTCATICACCTTATTCCAAACAATAACAGTATGCCGGTCTATGAATG ATAACGATCTTTAAGCTGAAGATGGGCAAAACAATATGGAYCGTCTACTAGTATETGTCTCTTTCCCPAT CONGRESSION OF THE PROPERTY OF GAGTETGEATCATGTAAATYTYATCTTETAATTTAACEAATAAAAATCAGGAGAAAZTEAGCCTAAAT TATTIBTRGCTCATACCTRCTAGTTCAGRCTAGRAGACTAATAAACATCCCCGTTACAAAATTAACA THT LACTACTEC L'ACCITICCA TOGTCAGAACAGGATACACCA ACTITOCTTG EGATQA TGATATC ATATCATRALCARA COUTT CARARSTON TTO CARSOTES CACTTT GOOD CAGACCA CURTOCTTART OCTUATIVE TO A CONTRACTATIVE ATTAINANT ATTAINS AND A CONTRACTATIVE GOOD AND A CONTRACTATIVE ATTAINS AND A CONTRACT ATABEATATCATETTATCTGTCTTACTTATEATTTATTAATTACATAAAATGAAACGGAATGAATAACAT AMATANTATANASATATACTCCGTATAGTANGGTGCANAGGRGCGGATTAGATATT TICAGTANCAG ABUTCACA TOTGAT CATATCATGTG TATTT TICATA "AAAA TAAAAC TAGTA TACCCCACCCTGATTT IT -XTCTAARCTTCCRAATATRCCCTTGGTCA-TGCTAGTCAGTCGCTGGTTTGGAAGGGCAARCTGTAAA THE TOACAATTET TIGGE ANTIAGGTAAT AGGTOT CACCTATTICA ACACTTAC LATAAAAGGA CORT ACT IT: THE COARLEST TO UNCAGNATICACTEGETTICACACACTECCANAGTECGENGAGAINTICA GAGTTIGTACCG CGGETTANNAGTG

(57) Abstract: Disclosed herein are a novel sucrose-inducible promoter sequence and a 5' untranslated region which are derived from sweetpotato ADP-glucose pyrophosphorlyase gene (ibAGPI) (SEQ ID NO: 1). Also disclosed are expression vectors using the same sequences and a transgenic plant using the same vectors. The promoter and 5' untranslated region according to the present invention can confer a high level of sucrose-inducible expression in plants, particular ly in plant storage roots which contain sucrose in relatively large quantities to accumulate starch in large quantities in plants. Therefore the present invention may be useful for the generation of transgenic plants to produce useful proteins in large quantities in plant storage roots.

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